PRODUCT SPECIFICATION

STATENS SERUM INSTITUT

HYB 131-01B Anti MBL (human), biotinylated

Mouse monoclonal antibody

OVERVIEW	Article No.	49394	
	Product Name	HYB 131-01B Anti MBL (human), biotinylated	
	Clone ID	3B6	
	Subclass	IgG1 / Kappa	
	Specificity	HYB 131-01B Anti-MBL (human), biotinylated is specific for MBL from human serum or plasma.	
	Species Reactivity	Human	
	Epitope Specificity	The epitope specificity differs from that of HYB 131-10 and HYB 131-11.	
	Immunogen	MBL purified from human donor plasma.	
	Fusion Partner	X63-Ag8.653.	
	Culture Medium	Dulbecco's modified Eagle's medium with 10 % fetal calf serum	
TESTED APPLICATION	Method	Usability	References
	Enzyme linked immunosorbent assay (ELISA)	Yes	In house analysis, 1
PRODUCT SPECIFIC INFORMATION	HYB 131-01B, biotinylated is selective for detection of normally oligomerized MBL in a sandwich ELISA using HYB 131-01 as catching antibody (1).		
PROPERTIES	Conjugation:	Biotinylated	
	Form	Liquid	
	Preparation:	Protein A	
	Concentration:	Lot specific. See Certificate of Analysis for details.	
	Solvent:	PBS, pH 7.2 – 7.4	
	Storage information:	Store at 2 - 8 ºC.	

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TARGET	Mannan-binding lectin (MBL), also called mannose-binding lectin or protein, is a C-type lectin and an important component in innate immunity. MBL is an oligomer i.e. forming dimers to hexamers of homotrimeric subunits of approximately 26 kDa polypeptides. This oligomerisation is essential for functional activity (2). MBL forms a non-covalent complex with specific MBL-associated serine proteases (MASPs), termed MASP-1, -2, and -3. Upon binding to the surface of a pathogen, MASP-activation is initiated with subsequent complement activation and clearance through lysis or phagocytosis (3). MBL-deficiency is the most common immune defect resulting in susceptibility to severe infections in early childhood, or if immuno-suppressed (4). MBL-deficiency has also been associated with several clinical disorders, e.g. autoimmune diseases, endocarditis, and septicaemia (4, 5). Normal levels of oligomeric MBL in serum are 1 – 5 µg/mL whereas MBL-deficient serum levels are < 100 ng/mL, when estimated by a standard ELISA for MBL quantification (2). Due to the presence of different structural and promotor alleles 12 % or more of the Caucasian population have low concentrations (< 50 ng/mL) of normally oligomerized, functional MBL in plasma or serum (6).
REFERENCES	1) Laursen I, Houen G, Højrup P, Brouwer N et al. (2007) Second-generation nanofiltered plasma-derived mannan-binding lectin product: Process and characteristics. Vox Sang., 92(4), 338-350. 2) Laursen I, Hojrup P, Houen G, Christiansen M. (2008) Characterization of the 1st SSI purified MBL standard. Clin Chim Acta, 395(1-2), 159-161. 3) Dommett RM, Klein N, Turner MW. (2006) Mannose-binding lectin in innate immunity: past, present and future. Tissue Antigens, 68(3):193-209. 4) Kilpatrick DC. (2002) Mannan-binding lectin: clinical significance and applications. Biochim Biophys Acta, 1572(2-3): 401-413. 5) Tran CT, Kjeldsen K, Haunsø S, Høiby N et al. (2007) Mannan-binding lectin is a determinant of survival in infective endocarditis. Clin Exp Immunol, 148(1): 101-105. 6) Steffensen R, Thiel S, Varming K, Jersild C, Jensenius JC (2000) Detection of structural gene mutations and promoter polymorphisms in the mannan-binding lectin (MBL) gene by polymerase chain reaction with sequence-specific primers. J Immunol Methods 241:33-42.

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Conditions

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